

FACULTY OF ENGINEERING AND COMPUTER SCIENCE BENG PROGRAM

2024 BRIDGE ORIENTATION

UNDERGRADUATE ADVISING

WE ACKNOWLEDGE WITH RESPECT THE LEKWUNGEN PEOPLES ON WHOSE TRADITIONAL TERRITORY THE UNIVERSITY STANDS AND THE SONGHEES, ESQUIMALT AND WSÁNEĆ PEOPLES WHOSE HISTORICAL RELATIONSHIPS WITH THE LAND CONTINUE TO THIS DAY.



Faculty of Engineering and Computer Science

Engineering Undergraduate Office

Associate Dean- Dr. LillAnne Jackson

Electrical and Computer Engineering

Chair: Dr. Michael McGuire

Program Directors:

–ELEC- Dr. Michael McGuire (acting)

–CENG- Dr. Mihai Sima

Academic Advisor: Alejandra Montenegro

Mechanical Engineering

Chair: Dr. Brad Buckham

Program Director: Dr. Daniela Constantinescu

Academic Advisor: Belinda de Jong

Co-op Office

Associate Director- Meeta Khurana

Co-op Coordinator- Dr. Kelly Stegman

Co-op Coordinator- Monty Raisinghani



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Outline

- Undergraduate Program
- Program Planning and Scheduling
- Information and Resources
- Some hints for student success
- Contact information
- Co-op information



Electrical and Computer Engineering Bridge Program



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Electrical Engineering Course Schedule

- Total of 7 Technical Electives, *must take two from the Special Bridge Student's list*
- ELEC bridge students must take MECH 295 as a Natural Science Elective in 4B (summer term)
- 4 Co-op work terms

Term 3A	COOP	Term 3B	COOP	Term 4A	COOP	Term 4B
Spring	Summer	Fall	Spring	Summer	Fall	Spring
CSC 349A		ECE 350		ECE 499	ENGR 446	ENGR 297
ECE 300		ECE 355		ECON 180		Technical Electives
ECE 310		ECE 360		MECH 295- NS elective		1 Complementary Studies Elective
ECE 320		ECE 370		Technical Electives		
ECE 330		ECE 380				
ECE 340		ECE 399				
ENGR 130						



Computer Engineering Course Schedule

- Total of 7 Technical Electives, *must take 2 from the Special Bridge Student's list*
- 4 Co-op work terms

Term 3A	COOP	Term 3B	COOP	Term 4A	COOP	Term 4B
Spring	Summer	Fall	Spring	Summer	Fall	Spring
ECE 300		ECE 355		ECE 499	ENGR 446	CSC 349A
ECE 310		ECE 356		ECON 180		ENGR 297
ECE 320		ECE 399		Technical Electives		Technical Electives
ECE 330		2 of: ECE 350, 360, 370 or 380				Complementary Studies Elective
ECE 340						
ECE 363		1 Natural Science Elective				
ENGR 130						

SPECIAL BRIDGE STUDENT ELECTIVE LIST

- Bridge students must take at least two courses from the following list:

- ECE 363
- ECE 410
- ECE 441
- ECE 449
- ECE 454
- ECE 455
- ECE 466
- ECE 481
- MECH 458
- SENG 440



ECE Specializations- Technical Electives

- Students who complete 3 courses (4.5 units) in one of the specialization areas listed below can request a letter from the Electrical and Computer Engineering office (contact Academic Advisor)

Communications	Computational Intelligence	Computer Systems	Digital and Embedded Systems	Digital Sign Processing	Electrical Energy Systems
ECE 404	ECE 435	ECE 448	ECE 441	ECE 403	ECE 410
ECE 405	ECE 470	ECE 449	ECE 448	ECE 407	ECE 427
ECE 417	ECE 471	ECE 455	ECE 449	ECE 417	ECE 482
ECE 450	ECE 485	ECE 457	ECE 455	ECE 435	ECE 488
ECE 456			ECE 466	ECE 459	
ECE 363			SENG 440	ECE 483	
				ECE 484	
				ECE 486	



ECE Specializations- Technical Electives

-continued

Electromagnetics and Photonics	Electronics	Mechatronics	Networks, Security and Privacy	Other	Topics and Thesis Courses
ECE 404	ECE 410	ECE 426	ECE 448	ECE 440	ECE 490
ECE 434	ECE 412	ECE 455	ECE 456	ECE 461	ECE 498
ECE 452	ECE 420	ECE 460	ECE 463	ECE 462	ECE 496 Topics
ECE 453	ECE 427	ECE 482		ECE 496	
ECE 454	ECE 441	MECH 458		SENG 475	
	ECE 481				
				Permission:	
				MECH 410	
				MECH 460	



ELEC Prerequisite Chart

3rd year- 3A

CSC 349A		ECE 300		ECE 310		ECE 320		ECE 330		ECE 340	
CSC110 or 111; MATH 110 or 211, either MATH200 and 201 or MATH 202 or 204		ECE 250, 260 MATH 201 or 204	ECE 380, 404	ECE 260	ECE 350,403, 407, 435, 459, 483, 484, 486, 466, 471	Min GPA 3.0 in all: ECE 216,220, MATH 204	ECE 380,412, 420,452,481	Min GPA 3.0 in all: ECE216,250, MATH 200	ECE 350,380, 461, 462	ECE216, MATH 201, 204	ECE 404, 434, 452, 453
SPRING, FALL		SPRING		SPRING, SUMMER		SPRING		SPRING		SPRING	

3rd year- 3B

ECE 355		ECE 350		ECE 360		ECE 370		ECE 380		ECE 399	
ECE 241 or MATH 122, ECE 255 or CSC230	ECE 471, 449, 455, 466, SENG 440, 466	ECE 310, 330	ECE 417,450, 456	ECE 260	ECE 426, 460,461,462	ECE 216, 250	ECE 410, 462, 482, 488	ECE 300, 320, 330	ECE 410, 481	ECE 200,299, ENGR 001 and, 3 rd year standing	ECE 499
FALL		FALL		SPRING, FALL		FALL		FALL		FALL	

4th year- 4A & 4B

ECE 499		ECON 180		ENGR 297		ENGR 446 Technical Report		** 7 technical electives		* 1 CS elective & * 1 NS elective	
ECE 399 or MECH 350 or BME 350, ENGR002, 4th year standing		MATH 101, admission to BENG program		ENGR 120 or ENGR 240 or ENGL 225		ENGR 002 & 6 units of 400-level courses ENGR 003					
SUMMER		SUMMER, FALL		SPRING, SUMMER, FALL		SPRING, SUMMER, FALL					



CENG Prerequisite Chart

3rd year- 3A

CSC 349A		ECE 300		ECE 310		ECE 320		ECE 330		ECE 340	
CSC110 or 111; MATH 110 or 211, either MATH200 and 201 or MATH 202 or 204		ECE 250, 260 MATH 201 or 204	ECE 380, 404	ECE 260	ECE 350,403, 407, 435, 459, 483, 484, 486, 466, 471	Min GPA 3.0 in all: ECE 216,220, MATH 204	ECE 380,412, 420,452,481	Min GPA 3.0 in all: ECE216,250, MATH 200	ECE 350,380, 461, 462	ECE216, MATH 201, 204	ECE 404, 434, 452, 453
SPRING, FALL		SPRING		SPRING, SUMMER		SPRING		SPRING		SPRING	

3rd year- 3B

ECE 355		ECE 350		ECE 360		ECE 370		ECE 380		ECE 399	
ECE 241 or MATH 122, ECE 255 or CSC230	ECE 471, 449, 455, 466, SENG 440, 466	ECE 310, 330	ECE 417,450, 456	ECE 260	ECE 426, 460,461,462	ECE 216, 250	ECE 410, 462, 482, 488	ECE 300, 320, 330	ECE 410, 481	ECE 200,299, ENGR 001 and, 3 rd year standing	ECE 499
FALL		FALL		SPRING, FALL		FALL		FALL		FALL	

4th year- 4A & 4B

ECE 499		ECON 180		ENGR 297		ENGR 446 Technical Report		** 7 technical electives		* 1 CS elective & * 1 NS elective	
ECE 399 or MECH 350 or BME 350, ENGR002, 4th year standing		MATH 101, admission to BENG program		ENGR 120 or ENGR 240 or ENGL 225		ENGR 002 & 6 units of 400-level courses ENGR 003					
SUMMER		SUMMER, FALL		SPRING, SUMMER, FALL		SPRING, SUMMER, FALL					



ECE Options

- Biomedical Engineering Option

Additional courses:

BME 200 Molecular and Cellular Physiology for Engineers

BME 201 Quantitative Human Physiology

ECE 335 Biosensors and Instrumentation

ECE 435 Medical Image Processing

This option also requires completion of one of the following courses as one of the Technical Electives:

ECE 434 Biophotonics

PHYS 432 Medical Physics

Note: Students in this option may take EPHE 141 and BIOL 225 in lieu of BME 200 and 201, but must then take BIOL 190A as their Science Elective.



ECE Options

- Computer Music Option
Additional courses:

MUS 306

MUS 307

Plus a total of 3.0 units from the following list:

CSC 475

ECE 484

MUS 401C

MUS 406A

MUS 406B

MUS 407



Mechanical Engineering Program Scheduling Worksheet

WINTER SESSION Fall: September to December		Spring: January to April		SUMMER SESSION Summer: May to August	
WT	Year:	3A	Year:	WT	Year:
Work Term		<p>(Sp,F) CSC 349A (one of CSC 110, CSC 111; one of MATH 110, MATH 211; & one of MATH 200 & MATH 201, or MATH 202, or MATH 204)</p> <p>(Sp) MECH 320 (MECH 220)</p> <p>(Sp) MECH 335 (MECH 242)</p> <p>(Sp,F) MECH 345 (MECH 220; one of MECH 240, MECH 295; & MATH 200)</p> <p>(Sp) MECH 350 (one of MECH 200, ECE 299, ELEC 299; MECH 220; MECH 285; one of ECE 250, ELEC 250; one of STAT 254, STAT 260; ENGR 001; & MECH 335 pre- or co-requisite)</p> <p>(Sp) MECH 390 (MECH 240)</p> <p>(F,Sp) ENGR 130</p>		Work Term	
3B	Year:	WT	Year:	4A	Year:
<p>(F) ECE 365* (one of ECE 216, ELEC 216, PHYS 216; & one of ECE 250, ELEC 250)</p> <p>(F,Su,Sp) ECON180 (MATH 101)</p> <p>(F) MECH 330 (MECH 220; MECH 242; one of MATH 110, MATH 211; & one of MATH 201, MATH 204)</p> <p>(F) MECH 360 (MECH 220)</p> <p>(F) MECH 380 (MECH 330 pre- or co-requisite)</p> <p>(F) MECH 395 (MECH 240; & MECH 345)</p>		Work Term		<p>(Su,Sp) MECH 400B – 3.0 units (MECH 400A)</p> <p>(Su,F,Sp) ENGR 297 (one of ENGR 120, ENGR 240, ENGL 225, ENSH 202 pre- or co-requisite)</p> <p>3 Technical Electives</p>	
		<p>Course is online and should normally be taken in term prior to MECH 400B; can be completed on a Work Term or Academic Term</p>			
WT	Year:	4B	Year:		Year:
Work Term		<p>(Sp,F) ENGR 498 (ENGR 003)</p> <p>4 Technical Electives</p> <p>1 Complementary Studies Elective</p> <p>or MECH 462 (Su) (not a technical elective course)</p>			
	Year:		Year:		Year:
	Year:		Year:		Year:



MECH Specializations - Technical Electives

- Engineering Bridge Program students required to complete 7 technical electives (10.5 units) to be chosen from the lists below.
- Students who complete 4 courses (6.0 units) in one of the specialization areas listed below can request a letter from the Mechanical Engineering Department office confirming this; the specialization will not be shown on the transcript. Topics, Thesis or Projects courses can be used for only one specialization letter, when deemed related to the specialization area by the course instructor.



MECH Specializations- Technical Electives

Computer Aided Engineering & Advanced Manufacturing	Advanced Materials	Energy Systems	Fluids & Aerodynamics	Mechatronics	Biomedical Engineering
MECH 410	MECH 472	MECH 431	MECH 431	MECH 421	MECH 448
MECH 420	MECH 473	MECH 442	MECH 442	MECH 430	MECH 452
MECH 460	MECH 481	MECH 443	MECH 443	MECH 455	MECH 472
MECH 495		MECH 444	MECH 444	MECH 458	MECH 481
		MECH 446	MECH 446	MECH 459	MECH 483
		MECH 447	MECH 447	MECH 487	
		MECH 449	MECH 475		
		MECH 459	MECH 492		
		MECH 492	MECH 493		
		MECH 493	MECH 495		
		MECH 497			



Academic Year Important Dates

- January 21st - last day for 100% reduction of tuition fees
- February 11th - last day for 50% reduction of tuition fees
- February 29th - last day for dropping courses without penalty of failure

<https://www.uvic.ca/calendar/dates/>



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Complementary Studies Electives

- A Complementary Studies Elective course dealing with central issues in humanities or social sciences, as required by CEAB guidelines for complementary studies, and as approved by the Faculty of Engineering.

- Approved list ...

<https://www.uvic.ca/engineering/assets/docs/student-forms/Complementary-Studies-Electives.pdf>

- Denied list ...

<https://www.uvic.ca/engineering/assets/docs/student-forms/denied-complimentary-studies-electives.pdf>

- BC Transfer Guide

<http://www.bctransferguide.ca/search/course>



Taking a Course During a Work Term

Co-op work term requirement: **4 work terms**

Taking a course during a work term:

GPA \geq 4.0 and one concurrent course - student must request permission of the work supervisor and Associate Director of Engineering and Computer Science Co-op; can be done via email



Minor Programs

Minor (6 or more additional courses)

- Business
- Physics
- Math
- Electrical Systems
- Computer Science
- Computer Systems
- Mechanical Systems
- Software Development (on pause)
- etc.




Resources - Forms

<https://www.uvic.ca/engineering/current-students/resources/index.php>

Bachelors of Engineering and Software Engineering forms:

-  [Complementary Studies Electives](#) (updated Dec. 15th, 2021)
-  [Complementary Studies Request](#) (updated Dec. 16th, 2021)
-  [Declaration of a Minor](#) (updated Dec. 16th, 2021)
-  [Denied complementary studies electives](#) (updated Dec. 15th, 2021)
-  [Denied natural science electives for BSEng](#) (updated September 2021)
-  [Denied natural science electives for ECE](#) (updated September 2021)
-  [Interpretive statement on electives](#) (new Nov. 7th, 2018)
-  [Leave of Absence Request](#) (updated Dec. 16th, 2021)
-  [Letter of permission / Transfer credit request form](#) (updated Dec. 16th, 2021)
-  [Natural Science Electives for BSEng](#) (updated July 7th, 2020)
-  [Natural Science Electives for ECE](#) (updated September 2021)
-  [Natural Science Request](#) (updated Dec. 16th, 2021)
-  [Pre-requisite or co-requisite waiver request](#) (updated Dec. 16th, 2021)
-  [Request for a third attempt of a course](#) (new Dec. 16th, 2021)
-  [Request for Registration with a Time Conflict](#) (updated Dec. 16th, 2021)
-  [Request to Withdraw from BEng/BSEng Program](#) (updated Dec. 16th, 2021)
-  [Year 1 two-term and alternate three-term planner](#) (updated Apr. 9th, 2021)
-  [Year 2 transfer admission planner](#) (updated Dec. 17th, 2021)

Can't find the form you need? Please come to the Engineering Undergraduate Office, EOW 206, or email  enr@uvic.ca



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Maximum Time for Degree Completion

Students must complete their programs within the specified time limits below or must have an extension approved by the Associate Dean, Undergraduate Programs.

Year of Entry into BEng or BSEng	1	2	3
Normal Time to Complete (months)	56	44	28-36
Maximum Time to Complete (months)	80	68	48

CAPP Report

Curriculum, Advising and Program Planning

You can refer to your CAPP report for information on completed and remaining degree program requirements, via [MyPage](#).



Some Hints For Student Success



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Academic, Learning and Personal Supports

- Academic Advisors
- Instructor Office Hours
- Co-op Coordinator
- Career Educator
- Centre for Accessible Learning (CAL)
- Study Solutions - Learning Assistance Program and Tutor Registry
- International Student Support
- Student Wellness Centre for Counselling and Health/Medical
- SupportConnect
- Learning Commons at Library

 MyUVic Life

uvic.ca/myuviclife



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Academic Standing

- Your GPA is reviewed twice a year
 - End of Winter Session – **September through April**
 - End of Summer Session – **May through August**
- Good Standing – sessional GPA 2.0 or higher
- Academic Probation – sessional GPA less than 2.0
- Required to Withdraw – unsuccessful probation period
- Acknowledge early warning signs. Come talk to your Academic Advisor.



Grading

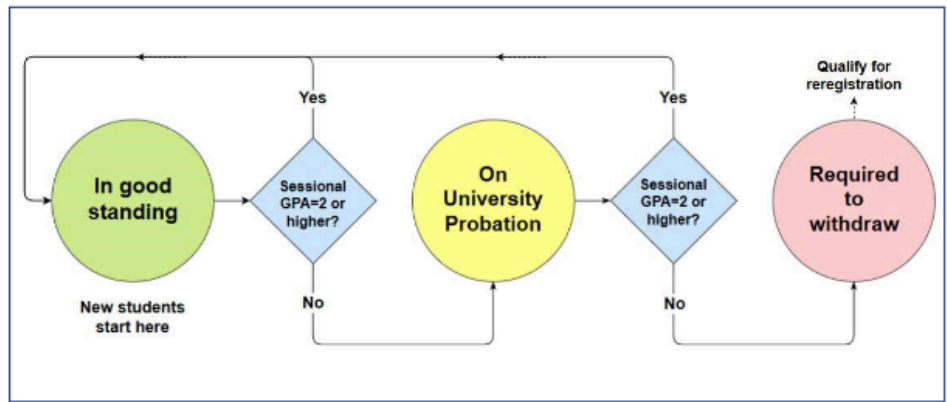
<u>Grade</u>	<u>Grade Point Value</u>	<u>Percentage</u>
A+	9	90-100
A	8	85-89
A-	7	80-84
B+	6	77-79
B	5	73-76
B-	4	70-72
C+	3	65-69
C	2	60-64
D	1	50-59
E	0	0-49 (supplemental)
F	0	0-49 (earned by work)
N	0	0-49 (incomplete)



Academic Standing Roadmap

This roadmap illustrates the undergraduate [academic standing regulations](#) for students in Engineering and Computer Science, Fine Arts, Humanities, Science and Social Sciences.

Education, Human & Social Development, Law and the Peter B. Gustavson School of Business programs have additional academic standing regulations and students should contact their [program adviser](#) with any questions.



Start of session Academic Standing	Sessional GPA	End of session Academic Standing	Permitted to register in next session?*
In Good Standing	2.00 or greater	In Good Standing	Yes
	1.99 or less	University Probation	Yes
University Probation	2.00 or greater	In Good Standing	Yes
	1.99 or less	Required to Withdraw	No

* Access to registration may be delayed if your [projected sessional GPA](#) in the current session is below 2.00

<https://www.uvic.ca/registrar/assets/docs/academic-standing.pdf>



Unclear about UVic Policies ???



- Read the current [UVic Calendar](#)
- Familiarize yourself with BEng [MECH](#) and [ECE](#) Websites
- Understand program/degree requirements



Connect With Us!

ECE Academic Advisor

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WCOOnline ENGR Advising

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MECH Academic Advisor

Belinda de Jong

WCOOnline ENGR Advising

Tel. 250 472 5215

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On-line appointment booking system

<https://uvicecs.mywconline.com/>



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